

BYPASS SET UP FOR INTEGRATION OF REMOTE OPTICAL ENDPOINT FOR CVD CHAMBERS

ABSTRACT OF THE DISCLOSURE

Accumulation of material in an endpoint detection cell downstream of a CVD chamber is avoided by selectively isolating the endpoint detection cell from chamber exhaust. During initial and midpoint phases of a plasma-based semiconductor fabrication process when concentration of materials in the chamber exhaust is heaviest, a bypass valve is closed and the endpoint detection cell is isolated from exposure to exhaust from the chamber. As endpoint of the plasma-based process approaches, the isolation valve is opened and the detection cell is exposed to chamber exhaust and can accurately detect the precise endpoint of the process. By selectively isolating the endpoint detector in accordance with embodiments of the present invention, unwanted accumulation of deposited materials that could degrade reliability of an optical or RF power endpoint detection signal is avoided.

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